

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001774**Date Inspected:** 17-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island**CWI Name:** Xu Bing**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG & Tower Fab**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present observe production welding of the 47.6 meter tower diaphragm weld splices and perform Visual Testing (VT) of the Orthotropic Box Girder (OBG) components, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

The Caltrans QA Inspector observed an area of undercut approximately 2 mm in depth and 2230 mm (intermittently) in the bevel face of the 47.6 Tower south diaphragm weld SA326-1B. ZPMC QC Mr. Xu Bing stated the area would be Air carbon arc gouged, ground smooth and welded on the AM shift.

The Caltrans QA Inspector performed visual inspection of OBG 14.960 meter deck panel DP378-001 (welds 001 through 010) U-rib Partial Joint Penetration (PJP) welds. Visual testing of welding was performed in accordance with contract documents. The following discontinuities were found during inspection on the Submerged Arc Welding (SAW) cover pass, incomplete fusion, overlap, undercut, underfill and oversize welds. Welding discontinuities were marked on deck panel with a permanent marker, length and Y location recorded. Visual Inspection results were distributed to the appropriate personnel for review. A summary of discontinuities on inspected U- rib PJP welds are listed below.

DP378-001

DP378-001-001, Incomplete Fusion 1 area, Overlap 3 areas, Undercut 1 area, and Underfill 16 areas.

DP378-001-002, Incomplete Fusion 2 areas, and Underfill 10 areas.

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DP378-001-003, Incomplete Fusion 3 areas, Overlap 5 areas, Underfill 4 areas, and Oversize 1 area.

DP378-001-004, Overlap 2 areas, Underfill 2 areas, and Incomplete Fusion 3 areas.

DP378-001-005, Overlap 5 areas, Underfill 6 areas, and Undercut 1 area.

DP378-001-006, Overlap 2 areas, and Underfill 7 areas, and Oversize 18 areas.

DP378-001-007, Overlap 4 areas, Underfill 3 areas, and Incomplete Fusion 1 area.

DP378-001-008, Undercut 1 area, Underfill 1 area, Incomplete Fusion 1 area, and Oversize 1 area.

DP378-001-009, Overlap 3 areas, and Underfill 6 areas.

DP378-001-010, Underfill 4 areas, and Incomplete Fusion 6 areas.

Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
